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EXAMINER	
LUONG, ALAN H	

ART UNIT	PAPER NUMBER
2427	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/670,064	CASE, MICHAEL L.	
	Examiner	Art Unit	
	ALAN LUONG	2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 21, 2009, has been entered.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 13-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 13 is directed towards 'an article comprising a computer readable medium having stored thereon data representing instructions'. Paragraph 48 of the specification sets forth that the invention may be provided as a downloadable computer program product by way of data signals embodied in a carrier wave or other propagation medium. Consequently, the scope of the claimed 'article' appears to encompass transitory embodiments constituting signals since the scope of the claimed 'article' does not appear to be necessarily tangible as opposed to a message (program) being conveyed on a signal. It is suggested that the

applicant either amend the specification to remove the downloadable/signal embodiment or to clarify the claim language to encompass only tangible / non-transitory embodiments of machine readable mediums of paragraph 48.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites "a first tuner ***to provide*** modulated video signals'" (line 2); "a second tuner ***to provide*** modulated video signals", (line 5). The tuners, however, don't provide modulated video signals, rather the tuners receive modulated video signals and provide demodulated video signals (Para. 0015). Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims **1- 5, 8-10, 13-15 and 18-21** are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. **2004/0102155** by **Klauss et al.**

Regarding to claim 1: Fig. 4 of **Klauss** illustrates a receiver IRD 132 as **an apparatus comprising:**

a first tuner [410A] **to provide modulated video signals (i.e.** media programs are streamed to the IRD 132 in real time, and may include video, audio, or data services) **the first tuner having an external control interface** (i.e. CAM [406] is coupled to CAV [408], MAM [411], TDM [412], Source [416] and RAM [418]) **to receive commands in a first protocol specific to the first tuner at the external control interface (**i.e. The *Conditional Access Information* (CAI) is received by a first tuner 410A of the plurality of tuners 410A-410N in the receiver 132. The CAI is then examined to determine whether the CAI is of a first type (type A) that is transmitted by all of the plurality of transponders 450-456; the tuner 410 that received the CAI is designated to be the first tuner 410A that will receive the type A CAI is passed to the CAM 406), **(Klauss, ¶0050 to ¶0055 and Fig. 5 ¶0064-¶0065, ¶0067); and**

a second tuner [410B] **to provide modulated video signals (i.e.** media programs are streamed to the IRD 132 in real time, and may include video, audio, or data services)**,** **the second tuner having an external control interface** (i.e. CAM [406] is coupled to CAV [408], MAM [411], TDM [412], Source [416] and RAM [418]) **to receive**

commands in a second protocol different from the first protocol (i.e. The *Conditional Access Information* (CAI) is received by a second tuner 410B of the plurality of tuners 410A-410N in the receiver 132. The CAI is then examined to determine whether the CAI is of a second type (type S) that is transmitted by a subset of the plurality of transponders 450-456; if the CAI is of the second type (type S), the channel information can be examined to determine which of the tuners are tuned to the identified channel, and the only CAIs from tuners that are tuned to the identified channel are passed to the CAM 406.**) and specific to the second tuner at the second tuner external control interface (Klauss, ¶0050 to ¶0055 and Fig. 5 ¶0064,¶0067 and ¶0071)**

a graphics controller (i.e. a microcontroller and associated memory 414) **to generate commands for controlling the first and second tuners (**the microprocessor and memory 414 controls the tuners and receives information from them) **(Klauss, ¶0053), the commands being generated in a third protocol different from the first and second protocols.** (i.e. a user I/O device [420] couples to a microcontroller and associated memory 414 for accepting subscriber 110 commands.) **(Klauss, ¶0055),**.

a microcontroller coupled to the graphics controller (i.e. a microcontroller inside the microcontroller and associated memory [414]) **and to the external interfaces of the first and second tuners** (i.e. CAM [406] is coupled to CAV [408], MAM [411], TDM [412], Source [416] and RAM [418]) **to receive the commands from the graphics controller in the third protocol** (i.e. a microcontroller and associated memory 414 receives user's commend from user's I/O [420]) to identify a tuner to which each

command is directed **to convert the commands from the third protocol to the protocol for the identified tuner,** (i.e. the microcontroller and memory 414 may be implemented via software instructions stored in the memory and performed by the microcontroller 414 and the verifier 408 compile the CAI statistics that allow the tuner that most often receives type A CAI to be identified.) **(Klauss, ¶0054 and ¶0067) and** Fig. 5D illustrates steps to **transmit the converted commands to the respective identified tuner through the external control interface of the respective tuner**. (i.e. the CAI includes channel information identifying the channel transmitting the CAI. As previously described, this information can be in the header of the CAP. Using this information, the channel upon which the CAI was transmitted is identified, as shown in block 540. Then, a determination is made regarding which of the tuners 410 are tuned to the channel identified in block 540), **(Fig. 5C-D, Klauss, ¶0067 to ¶0072)**

Regarding to claim 2. The apparatus of Claim 1, FIG. 5B-C of Klauss depicts exemplary process steps that can be used to determine which tuner is designated to be the only tuner that will receive the type A CAI **wherein the tuner further generates command responses in the first protocol** (i.e. type A CAI) **(¶0067**) and **wherein the microcontroller receives the command responses, converts them to the third protocol (i.e.** microprocessor 414 or other element of the IRD 132 compiles the CAI statistics that allow the tuner that most often receives type A CAI to be identified) **and transmits the converted command responses to the graphics_controller** (i.e. the CAI includes channel information identifying the channel transmitting the CAI. As previously described, this information can be in the header of the CAP. Using this

information, the channel upon which the CAI was transmitted is identified, as shown in block 540. Then, a determination is made regarding which of the tuners 410 are tuned to the channel identified in block 540 .The processor for performing the operations defined in the software module may be stored in a CAV 408 dedicated memory coupled to a CAV 408 dedicated processor, or may be performed by the microcontroller and associated memory 414. Other elements, such as the CAM 406 and/or the microcontroller and memory 414 may perform some or all of the functions described in FIGS. 5A-5C.), **(Fig. 5C-D, Klauss, ¶0067 to ¶0072)**

Regarding to claim 3: The apparatus of Claim 1, Klauss further teaches a **third tuner** (i.e. tuner [410C] of tuners [410]) **to receive a modulated video signal (i.e.** media programs are streamed to the IRD 132 in real time, and may include video, audio, or data services), **the third tuner having an external interface** (i.e. CAM [406] is coupled to CAV [408], MAM [411], TDM [412], Source [416] and RAM [418]) **to receive commands in a fourth protocol specific to the third tuner, (**i.e. The Conditional Access Information (CAI) is received by a third tuner 410C of the plurality of tuners 410A-410N in the receiver 132. The CAI is then examined to determine whether the CAI is of a fourth type (type F) that is transmitted by a subset of the plurality of transponders 450-456; if the CAI is of the fourth type (type F), the channel information can be examined to determine which of the tuners are tuned to the identified channel, and the only CAIs from tuners that are tuned to the identified channel are passed to the CAM 406.**) (Klauss, ¶0050 to ¶0055 and Fig. 5 ¶0064, ¶0067 and ¶0071)**

and wherein the microcontroller receives external commands from the graphics controller for the third tuner in the fourth protocol (i.e. microcontroller and associated memory 414 receives another user's command from User's I/O [420]), **converts them to the fourth protocol** (i.e. microprocessor 414 or other element of the IRD 132 compiles the CAI statistics that allow the tuner that most often receives type F CAI to be identified) **and transmits them to the external interface of third tuner** (i.e. the CAI includes channel information identifying the channel transmitting the CAI. As previously described, this information can be in the header of the CAP. Using this information, the channel upon which the CAI was transmitted is identified, as shown in block 540. The processor for performing the operations defined in the software module may be stored in a CAV 408 dedicated memory coupled to a CAV 408 dedicated processor performed by microprocessor 414) **(Fig. 5C-D, Klauss, ¶0067 to ¶0072).**

Regarding to claim 4: The apparatus of Claim 1, referring to Fig. 4 of Klauss **wherein the tuner further comprises an input/output interface** (i.e. User I/O device [420] **to communicate data and control signals in the first protocol to external devices** (i.e. Source decoder [416] and TDM [412]) **and wherein the microcontroller** [414] **is coupled to the input/output interface** [420] **to convert data and control signals between the first protocol and the third protocol (Klauss, ¶0055, ¶0058).**

Regarding to claim 5: The apparatus of Claim 1, referring to Fig. 4 of Klauss wherein the graphics controller [114] is **a system processor coupled to the microprocessor to generate the commands in the first protocol to control the tuner** (the microprocessor and memory 414 controls the tuners and receives

information from them)(Klauss, **¶0053**) **and to control other functions of the apparatus.** (Klauss, **¶0072**)

Regarding to claim 8: The method has the same limitation in claim 1, so, claim 8 is rejected the same ground with claim 1

Regarding to claim 9: The method in claim 9 has the same limitation in claim 2, so, claim 9 is rejected the same ground with claim 2

Regarding to claim 10: The method in claim 10 has the same limitation in claim 3, so, claim 10 is rejected the same ground with claim 3

Regarding to claim 13: With respect to the article claim 13, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by apparatus in claim 1 and since this article in claim 13 merely repeats the same limitations of claim 1, claim 13 must also be anticipated by Klauss (see claim 1 rejection).

Regarding to claim 14: With respect to the article claim 14, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by apparatus in claim 2 and since this article in claim 14 merely repeats the same features of claim 2, claim 14 must also be anticipated by Klauss (see claim 2 rejection).

Regarding to claim 15: With respect to the article claim 15, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by apparatus in claim 3 and since this article in claim 15 merely

repeats the same features of claim 3, claim 15 must also be anticipated by Klauss (see claim 3 rejection).

Regarding to claim 18: Fig. 4 of Klauss illustrates a video tuner [410] .

Herein:

a system processor (i.e. a microcontroller and memory 414).

remote control interface from remote control (i.e. a user I/O device [420] for accepting subscriber 110 commands)

a tuner unit [410A to 410N] **to receive wireless video signals modulated over a carrier frequency** (i.e. The media programs may be transmitted by a plurality of satellites such as satellite 108A and 108B (hereinafter alternatively collectively referred to as satellite(s) 108), each of which typically includes a plurality of transponders 450-456), (Klauss, **¶0051**)

an external control interface (i.e. CAM [406] is coupled to CAV [408], MAM [411], TDM [412], Source [416] and RAM [418])

a microcontroller (i.e. a microcontroller built-in the system processor [414]) **coupled between the system processor and to the tuner** (i.e. tuner(s) [410])

With respect to the video tuner claim 18, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function of system processor as combination of function of CPU and a graphics controller required by an

apparatus claim 1 and since this video tuner in claim 18 merely repeats the same scope of claim 1, claim 18 must also be anticipated by Klauss (see claim 1 rejection).

Regarding to claim 19: With respect to the video tuner claim 19, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by an apparatus claim 2 and since this video tuner in claim 19 merely repeats the same scope of claim 2, claim 19 must also be anticipated by Klauss (see claim 2 rejection).

Regarding to claim 20: With respect to the video tuner claim 20, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by an apparatus claim 3 and since this video tuner in claim 20 merely repeats the same scope of claim 3, claim 20 must also be anticipated by Klauss (see claim 3 rejection).

Regarding to claim 21: With respect to the video tuner claim 21, as discussed above since the apparatus disclosed by Klauss anticipated every structural element and its function required by an apparatus claim 4 and since this video tuner in claim 21 merely repeats the same scope of claim 4, claim 20 must also be anticipated by Klauss (see claim 4 rejection).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 6, 11, 16 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Klauss, in view of US Patent No 6,772,434 to Godwin

Regarding to claim 6: The apparatus of claim 1, Klauss fails to disclose the feature of claim" a look-up table for the tuner wherein the microprocessor converts the external tuner commands by applying the commands in the **third** protocol to the look-up table".

In an analogous art directed toward a similar problem namely improving the results from a look-up table for the tuner . Fig. 3A of Godwin shows a data stream and Fig. 3B shows a data package as **a look-up table** (Godwin, col.5 lines 13-52) **for the tuner** (col. 4 line 61 to col.5 line 5). Therefore, it would have been obvious to a person having an ordinary skill in the art at the time of the invention was made to modify an apparatus of Klauss, with a data stream and a data packet for tuner as Godwin's disclosure; in order to provide a system for an integrated presentation of the media programs from primary service providers and secondary service providers, and an integrated technique for managing conditional access to the programs provided by different service providers.

Regarding to claim 11 and 16: With respect to the method claim 11 and 16, as discussed above since the apparatus disclosed every structural element and its function required by apparatus claim 6 and since this method in claim 11 and 16 merely repeat the limitation of claim 6, claim 11 and 16 have the same ground rejection as claim 6.

Regarding to claim 22: With respect to the method claim 22, as discussed above since the video tuner disclosed every structural element and its function required by apparatus claim 6 and since this method in claim 22 merely repeat the limitation of claim 6, claim 22 have the same ground rejection as claim 6.

3. **Claims 7, 12, 17 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Klauss,** in view of **US Pub. 2003/0194968** by **Young**.

Regarding to claim 7: Klauss teaches all features of apparatus in claim 1, but Klauss is unclear regarding to "an instruction stack specific for the tuner and wherein the microcontroller converts the external tuner commands by applying instructions from the tuner-specific instruction stack".

In an analogous art directed toward a similar problem namely improving the results from an instruction stack specific for the tuner. Young teaches **an instruction stack** (as "stream using RTP/RTSP protocol"…**specific for the tuner)**, (see **¶0074** lines 1-6) and (Fig. 2b block 252, Fig.6c block 251) **and wherein the microcontroller converts the external tuner commands by applying instructions from the tuner-specific instruction stack** (Young, **¶0073-¶0074**]). Therefore, it would have been obvious to a person having an ordinary skill in the art at the time of the invention was made to modify an apparatus of Klauss with an instruction stack specific for the tuner as taught by Young to install and configure due to the fact that each device must be equipped with a proprietary interface for communicating to other devices on the network. **(¶0009)**

Regarding to claim 12 and 17: With respect to the method claim 12 and 17, as discussed above since the apparatus disclosed by Klauss anticipated every structural

element and its function required by apparatus claim 7 in view of Young and since this method in claim 12 and 17 merely repeat the limitation of claim 7, claim 12 and 17 have the same ground rejection as claim 7.

Regarding to claim 23 With respect to the video tuner claim 23, as discussed above since the apparatus disclosed by Klauss and Young anticipated every structural element and its function required by an apparatus claim 7 and since this video tuner in claim 23 merely repeats the same scope of claim 7, claim 23 must also be anticipated by Klauss and Young (see claim 7 rejection).

Response to Arguments

4. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALAN LUONG/
Examiner, Art Unit 2427

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427